

American Thermostat Company

New York

EPA ID#: NYD002066330

EPA REGION 2

Congressional District(s): 22

Greene
South Cairo

NPL LISTING HISTORY

Proposed Date: 10/1/1984

Final Date: 6/1/1986

Site Description

From 1954 to 1985, American Thermostat Corporation built thermostats for small appliances at this 8-acre site in South Cairo. Located in the Catskill Creek Valley, the site and much of the nearby community are bordered by Routes 23 and 23B. The company was the only manufacturer in the vicinity, which is a popular tourist and residential area. In 1981, the New York State Department of Environmental Conservation discovered that American Thermostat employees were improperly disposing of chemicals at the site. C workers had been pouring waste organic solvents down drains attached to an abandoned septic system for a number of years and they had been dumping solvents and sludges on the parking lot. State health personnel tested wells in the vicinity of the site and found them to be contaminated with trichloroethylene (TCE) and other volatile organic compounds (VOCs), including tetrachloroethylene (PCE). The company, subsequently, installed carbon filters on its own well and on those of four affected homes. The home located next to the plant was hooked up to the company's water supply. The company ceased operations in 1985 and filed involuntary bankruptcy without completely fulfilling an agreement with New York State with regard to site cleanup.

Approximately 5,000 people live within a 3-mile radius of the site in low-density residential areas. Until a waterline was installed to protect the public from exposure to the contaminated ground water, all homes within 2 mile of the site used private wells. Catskill Creek, less than 1/4 mile east of the site, is classified as a trout stream and has considerable recreational value to local and visiting fishermen.

Site Responsibility: This site is being addressed through federal actions.

Threat and Contaminants

Ground water in the site vicinity is contaminated with VOCs, including PCE and TCE. An estimated 26,000 square feet of soil at the site were contaminated with TCE and PCE to a depth of approximately 30 feet. Contamination was also detected in portions of the building located on the site. Adverse human health effects may occur from ingesting or coming into direct contact with contaminated ground

water. The extension of the waterline has eliminated the threat of exposure to the contaminated ground water to area residents.

Cleanup Approach

The site is being addressed in two stages: immediate actions and long-term remedial phases focusing on provision of a new water supply and cleanup of the entire site.

Response Action Status

Immediate Actions: Under state orders, the owners agreed to clean up the site and its surroundings; to provide, monitor, and maintain carbon filtration systems for five affected wells; and to supply bottled water for consumption by the affected residents. However, when the company went out of business in 1985, it stopped providing bottled water and abandoned the maintenance of carbon filtration systems at the affected homes. The State requested that EPA sample other private wells near the site; provide bottled water and carbon filtration systems where necessary; and take over the maintenance of the water treatment systems at the originally affected homes. In addition to undertaking the work requested by the State, EPA also installed three air stripping systems at the site. A system of seven extraction and reinjection wells and a soil vacuum extraction system were installed at the site in 1989 for the purpose of accelerating the treatment of the ground water.

In November 1998, the New York State Department of Health (NYSDOH) reported to EPA the detection of VOC contamination in two wells servicing the Country Estates residential development, located in the western boundary of the Town of Catskill. During sampling conducted by EPA and NYSDOH in December 1998 and January 1999, VOC contamination was detected in three additional residential wells which, like the Country Estates wells, were located outside the previous limits of the contaminated ground water plume. EPA undertook emergency actions to provide temporary sources of clean drinking water to the affected residents, while continuing to monitor the contamination in the affected wells. The results of this monitoring indicate that for nearly two years, no VOC contamination has been detected in the three residential wells. Similarly, the contamination in both Country Estates wells has met drinking water standards since December 1999. EPA expects this trend to continue as a result of its ongoing extraction and treatment of contaminated ground water in the area. EPA also believes that certain recent improvements to the ground water extraction system described below have resulted in containing the spread of the ground water contamination in the area. As a precautionary measure, however, EPA will continue to operate the treatment systems on the previously-affected wells.

Although the treatment systems functioned effectively and the treated well water met drinking water standards, it was discovered that, at the Country Estates, water sampled at individual residences exceeded the standards for VOCs. It was concluded that VOC contamination persisted in the water distribution piping, which re-contaminated the treated water. As a result, EPA investigated several mechanisms for removing the VOC contamination from the piping. Since none of these mechanisms proved successful, in late Fall 2000, EPA replaced the contaminated distribution system = s plastic piping with new copper piping. Following the replacement of the piping, EPA testing of the water at the taps of the Country Estate residences has shown no VOC contamination.

Water Supply: In January 1988, following the completion of a focused feasibility study to evaluate alternate water supplies, EPA signed a Record of Decision (ROD), selecting a remedy that would assure a clean water supply to residents near the site. It included extending the existing Catskill water district pipeline to the affected and potentially affected areas. The construction of the water pipeline was completed in December 1992.

Entire Site: In 1990, following the completion of a remedial investigation and feasibility study to determine the nature and extent of the contamination at and emanating from the site and to evaluate remedial alternatives, a ROD was signed, selecting a remedy for the site. The actions selected to clean up the site include decontamination of the building located on the site, low-temperature treatment of the contaminated soil, and air stripping and carbon adsorption for treatment of the contaminated ground water. The decontamination of the building was completed in December 1992, the soil cleanup was completed in December 1996, and the construction of the ground water extraction and treatment system was completed in August 1998. EPA has made several recent improvements to the ground water extraction system, such as the installation of high capacity pumps in the most contaminated wells, the deepening of two wells to intercept contamination in the middle of the ground water plume, and the conversion of a highly contaminated injection well into an extraction well.

Five-year reviews are undertaken at sites to ensure that implemented remedies protect public health and the environment and that they function as intended by site decision documents. In September 2003, EPA issued a Five-Year Review Report, which concluded that the response actions implemented at the site are in accordance with the remedy selected by EPA and that the remedy continues to be protective of human health and the environment. EPA will conduct another five-year review on or before September 2008.

Cleanup Progress

The air stripping systems that were installed as part of a removal action at the site treated more than 10 million gallons of contaminated ground water. The extension of the Catskill water district pipeline provides potable water to the affected and potentially affected residents. The decontamination of the building resulted in the clean up of approximately 8,000 square yards of floor and wall surface. In addition, 20 drums of hazardous materials were removed and treated off-site. As a result of the soil cleanup, approximately 65,000 tons of contaminated soil was treated. To date, more than 200 million gallons of contaminated ground water have been treated (approximately 25 million gallons of contaminated ground water per year is treated per year) and approximately 1.5 tons of VOCs have been removed from the ground water. It is estimated that it will take 30 years to treat the contaminated ground water.

Site Repositories

Town of Catskill Office, 439 Main Street, Village of Catskill, NY 12414

Village of Catskill Office, 422 Main Street, Village of Catskill, NY 12414

EPA Region II Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866